

Abstract

A system and a method for designing and constructing software components and systems by assembling them from independent parts which is compatible with and extends existing object models. A terminal interface and a terminal mechanism for interfacing objects is included. The mechanism is independent from the actual type of interactions established through it and allows objects to invoke directly services of other objects. All objects in a given system implement and expose a terminal interface. A property interface and mechanism with hierarchical property names and ability to execute queries is also included. The mechanism can be used for parameterization and serialization of objects, as well as to provide structured storage. A new and advantageous type of software object, named parts, is defined. Parts are constructed through an abstract factory and implement a property interface and a terminal interface.